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STRAWBERRY PLANTS

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U. S. Department of Agriculture

1962 Season



Fairview Fruit Farm

Pierceton, Indiana

STRAWBERRIES

"Eat All You Want"

Once, when I was a small child, I went with my father to call upon a man with whom he had business. We found the man working in a field of his. This field was interesting to me for I had never seen its like before. Its rows of some dark green plants, about a foot high, had pathways of straw.

The man knelt down and parted the leaves and showed me scarlet berries growing there and gave me some to eat, and then left me with the admonishment, "Eat all you want".

I do not remember that I had ever tasted strawberries before, and I do not have words to tell you of the wonder and delight I felt as I went along the row, hunting out and eating this new and most wonderful fruit. Nor can I tell you how rich I felt that I might have all I wanted of those scarlet berries.

We have seen the same wonder and delight many times since in the eyes of those who came to pick in our own strawberry fields. We have seen and felt a kindred feeling for a man and woman who came to pick for themselves a crate of strawberries and stayed to pick four crates because they could not bear to leave the beautiful, big berries.

Perhaps our greatest pleasure in selling strawberry plants comes from the knowledge we have that scattered from Minnesota to West Virginia and Pennsylvania, from the northernmost tip of Michigan to Kentucky, across Ohio, Indiana, Illinois and Iowa, are fields of strawberries, with rows in orderly ranks, of our plants. By many a farm homestead we see the garden spot with its strawberry patch whose parent plants originated in our own fields.

For this is a berry that will grow anywhere, on any type of soil, and can be grown by anyone who will take the time to learn about the plant and what it takes to make it thrive and do well.

We have tried in this book to include the information you will need to make your strawberry project a successful one. We have tried to be very honest in evaluating the varieties so that you would know the weaknesses as well as the good points of each one. We are growing only those varieties we know to be among the best.

How are our plants grown and handled? We use a deep, rich soil; loose enough that all of the fine fibrous roots can be preserved in digging. The plants are hand dug so that the roots will not be injured, are brought immediately in-doors for cleaning, sorting, tying and counting. There old stolons and dead leaves are removed, questionable plants discarded, and the roots straightened, so that they reach you in best possible shape for setting.

All plants are guaranteed to reach you in good growing condition up to May 10. Because the plants are liable to heat in warm weather we cannot guarantee safe delivery after that date. We will pack as carefully as possible, but shipment must be at the buyer's risk.

If you find it possible we hope that you will come to our nursery. At any time, but especially when you get your plants. You can see what you are getting, and get the plants when your weather and ground conditions are right for setting. The money saved from shipping expenses will go a long way toward paying expenses. More important is our getting acquainted, for we do have a very personal interest in your success with our plants.



Mr. Bennett's Very Fine Strawberry Field

"Strawberry plants were fine, as always. Have used your plants for about fourteen years. They are always fine, and at a reasonable price. I will continue to use them."

Thomas W. Bennett, Waterman, Illinois

MAINTAINING GOOD STOCK

One of the most important developments in the strawberry world in the last few years is the discovery that virus diseases can be eliminated from our plantings. Virus free plants grow with such vigor and yields are so much better, that we are convinced that growers should not consider planting any other strains.

Some fine varieties, such as Catskill, that were very susceptible to virus infection, and had lost favor with growers because of resulting poor performance, are now being used again since virus-free plants are available. Personally, we are very happy about this since we have long regarded Catskill as one of the best of all.

Largely through the work of our entomologists at the U.S.D.A. and our state agricultural colleges, it was found that strawberry virus was carried by certain aphids. So if we start with stock that is virus-free we can maintain that condition by spraying or dusting our plantings at frequent intervals with a good aphicide. The best aphicides are malathion and parathion.

We have obtained our virus-free parent stock from sources approved by our State Department of Entomology and have followed the approved practices to maintain a disease free planting.

We believe that our plants are the best you can get anywhere.

INDIANA DEPARTMENT OF CONSERVATION DIVISION OF ENTOMOLOGY

INDIANAPOLIS 9, INDIANA

Fairview Fruit Farm

Glenn P. Galloway

R. 1

Pierceton, Indiana

} Certificate of Nursery Inspection No. 661

This is to certify that the nursery stock grown by the individual or firm whose name appears hereon has been inspected by the undersigned or his authorized representative in compliance with Chapter 177, Page 291, Indiana Acts 1907 and has been found apparently free from destructively injurious insects and plant diseases.

Inspection date May 18 & August 29, 1961. Issue date September 27, 1961.

This certificate covers strawberries, consisting of 25 acres, and is valid unless revoked for cause until October 1, 1962.

John J. Favinger, State Entomologist

BERRY CULTURE

SOIL AND CLIMATE

While the adaptability of strawberries to anything from the light sands of Florida to the heavy clays of Southern Indiana gives us plenty of leeway, we do rather prefer a sandy loam because it is so easily worked. And while the climatic range in our country is from the Gulf states to the Dakotas, we really think of our strawberry belt as extending from Tennessee and Arkansas north to Michigan and Wisconsin.

Whatever the type of soil, it must be high in fertility and humus content. This condition is difficult to reach in one year, but should be attained in the years prior to being put to berries by the use of barnyard manure, legumes, fertilizers, green manure crops, and those other practices familiar to good farmers.

Fall plowing is a good step in plant bed preparation. Certainly the soil must be well worked down to eliminate all clods, and to make the plant bed firm but friable. It is best not to have had the ground in heavy sod the previous year on account of cut worms and white grubs. These pests may do a great deal of damage in early season by eating off the plants at ground level.

It is generally not necessary to lime for strawberries, since they favor a soil that is slightly acid. Technically, we say that a pH near 6 is best. A pH somewhere between 5 and 7 is quite satisfactory.



Choice Berries — W. R. Chitwood & Sons, Dayton, Ohio

COMMERCIAL FERTILIZER

While the soil intended for a strawberry bed should carry a high fertility level, most of the garden and truck patch sites that we use for small plantings have already been manured well enough to require no further special treatment. But for the larger field plantings, liberal applications of commercial fertilizer will generally pay off well.

We like to broadcast and work into the soil before transplanting at least 1000 pounds of some good, high analysis fertilizer. Of course a higher analysis will take a smaller amount to do the same job. A soil analysis will indicate the best fertilizer to use, but something between 5-20-20 and a 12-12-12 is a fair shot in the dark. We also like a side dressing of maybe 250 pounds about June 15.

We must be careful in using fertilizer on small patches or we shall use too much. One-third of a 50-lb. bag to 100 plants is equivalent as a broadcast to 1000 lbs. per acre. As a side dressing, 1 pound to 50 feet of row is equivalent to 250 pounds to the acre. It is dangerous to use more.

In transplanting, avoid putting any fertilizer right around the plant. However, if you are using water and will add about three pounds of "starter solution", which is readily soluble and of a 10-51-17 approximate analysis, to 50 gallons of water and use half a pint per plant you will have some astonishingly successful results.

TIME FOR SETTING

Time and again we see the importance of early setting of nursery stock, especially small fruits. This work is something that cannot be put off. Transplanting should be done as soon as the ground is in condition to work. When you should be making garden you should be setting your berry plants.

Early setting insures the good stand and quick growth that means a good fruiting row.

If you are unavoidably delayed in getting your plants in the field at the right time, be sure to get plants that have been dug when dormant and held in cold storage until needed. Do not be afraid of cold storage. Extensive experiments have very conclusively shown that they will do much better when transplanted than will those that have made considerable growth before digging.

WE DO NOT OFFER PLANTS FOR FALL PLANTING.

PLANT SPACING

Fruiting rows in commercial fields where at least part of the picking is to be done by tiring or careless children should be spaced at about four feet. In smaller patches where the picking will be done with more care to the plants, we can cut this space down considerably, maybe to as little as three feet.

The distance in the row will depend upon the ability of the variety used to make new runners. We set such kinds as Premier, Earlidawn and Vermilion at about eighteen inches, varieties like Catskill, Sparkle, and Surecrop at about two feet. Such free-running kinds as Blakemore, Robinson, Dunlap, Tennessee Beauty, Armore and Dixieland will generally make a good row if set as far apart as thirty inches.

The number of plants needed per acre therefore depends upon the variety used. From the above spacing, it will take slightly more than 7000 plants for an acre of Premier, Earlidawn and Vermilion. About 5500 plants will set an acre of Catskill or Sparkle, while Robinson, Blakemore, Tennessee Beauty and Armore need only 4500 plants.

Most commercial growers favor and use the "matted row" system, principally because it is cheaper and requires less hand work. The cultivator will drag the stolons into the row to make a solid plant bed twelve or fourteen inches wide.

If you have a fancy local market and have the time, you can get close to the same yield but have much larger berries by using the hill system. Here the plants are set closer and all runners are cut off. Or you may start the matted row system, and by hand work space the new plants until they stand about eight inches apart in the row, then cut off all new runners. These methods are described in detail under the discussion on everbearers.

The important consideration is that if you want large, fancy fruit that will bring a good price you must keep the plants thinned in the row. At the same time the first runners should be encouraged to take root, for they will get larger and stronger and do best the next bearing season. If the row is going to be too thick because of too many runners, we can allow the last ones to grow out beyond the row, then cut them off before they take root.

"I received my first order of strawberry plants today. They were the best plants I ever bought. I think you sell the best plants in the country. I have told several of my friends."

A satisfied customer,
Earnest Kesler
Olney, Illinois

TRANSPLANTING

Strawberries are transplanted successfully in many ways, and with a variety of tools. For small patches, a garden trowel, dibble or small spade is very handy, while for large plantings the machine transplanter does a very excellent job. **Just fan the roots out as much as you can in the moist dirt of a deep hole or trench, SET THE PLANT AT THE HEIGHT IT ORIGINALLY GREW,** and press the soil firmly around the roots. **Don't bunch up the roots in the ground. Don't leave air pockets. Don't puddle the ground around the plant by working it when the ground is too wet.**

Each spring a new set of roots starts from the crown of the strawberry plant, and in case of the one new-set the crown must be in the moist soil or the new roots cannot start and the plant cannot thrive. Of course a plant cannot do well if the roots are allowed to be subjected to drying by wind and sun when set too high. If the crown is covered by soil it will turn yellow and rot. From these things we see the importance of depth in setting.

If the roots of the plants are too long they are cut back when setting to a length of about five inches. Just for convenience in handling—it makes no difference in growth.

We never bother to use water in transplanting if it is done when it should be—early. It is a necessary practice, though, in very late setting.

CULTIVATION

Cultivation should start soon after the plants are set and continue throughout the growing season. Many growers have their personal preferences in certain tools, sometimes rather expensive, for this purpose. But it is doubtful if they are any better than the usual cultivators found around most farms.

We favor the use of a small tractor with very small shovels or tines, one that lets you cultivate real close to the plant, going very slowly. Such a one as the Cub or Alys G is ideal in allowing the operator to ride, but any good garden tractor does very well that cultivates very close to the plant to minimize hoeing. Keep the weeds down, keep the soil level, loose and friable.

Some growers are saving a lot of hand work by checking their plants. That is, they set them in rows both ways for cross cultivation to eliminate maybe the first two hoeings.

The first runners should be encouraged to take root for they make the largest and heaviest plants and bear the next season.

All blossoms should be clipped off in the new planting as soon as they are well formed, and from everbearers until the plant is thoroughly established, about July 1.



**Labor Saving, Home-Made Mulcher
Used By L. S. Garver, Youngstown, Ohio**

MULCHING

Mulching should be done in the fall as soon as possible after the summer's growth is finished — before really severely cold weather.

What to use and how to apply it can best be decided with the purposes of mulching in mind — (1) to prevent winter damage from excessive cold when plants are unprotected and from alternate freezing and thawing, (2) to conserve moisture in the bearing season and keep the soil in better condition, (3) to keep down weeds, (4) to keep fruit clean, (5) to retard growth somewhat in early spring, thereby lessening the danger from early frosts.

We generally use wheat or rye straw, scattering it to a depth of about three inches and requiring approximately three tons per acre. Other good materials are shredded fodder, spoiled ensilage, cane pumice, saw dust, corn cobs, chopped hay. A good grower near Slavans, Kentucky, uses the wood shavings litter from his broiler house.

Use the material that is handy, easy of access, and that can be easily and cheaply applied. Avoid if possible any material that may have weed seed, clover seed or grain. Oats straw is generally undesirable because the grain will sprout in the spring and make quite a bit of growth. For the same reason it is a poor practice to top dress a berry field after the plants are grown, unless you are very sure that there are no grass or weed seeds in the material used.

Early in April, just when new growth starts and the berry plants begin to turn white under the mulch, you must go along the row and lift off just enough of the mulching material to allow the new growth to come through to the sunlight.

CARE OF PLANTING STOCK

Handling of the plants after they reach you is one of the most important factors in the success of your strawberry project. We try to avoid delays in transit by shipping on the first three days of the week only, and will advise you when shipment is made. Check with your express agent or postmaster so he can notify you quickly when the plants arrive and you can pick them up at once.

Set them out at the earliest feasible time. Should weather conditions or wet ground delay transplanting, make arrangements to keep the plants cold. If they are dormant and are kept at temperatures of 30° to 32° they will stay in perfect condition for an indefinite time. Your refrigerator is a good place for small packages, and most locker plants or wholesale grocers can find a place for a few thousand plants for quite a long time. Just keep the plants cold.

If you simply must hold plants and have no cold place, then heel them in. That is, dig a deep, narrow trench, break the bundles, and set the plants along in the trench just touching each other. Cover to the crown with moist earth, then sprinkle with water. If necessary, cover temporarily with some loose boards or roofing to prevent drying from wind and sun. Set in the field as soon as planting conditions are favorable.

Just before setting, let the plants sit in water until the roots are thoroughly wet. Let them plump up for an hour or so. Keep the roots moist until they are in the ground. Do not drop the plants too far ahead if you are hand setting. Do not let them dry out in the transplant box while you are doing something about the machine.

Be careful all the time.

OUR GUARANTEE

We guarantee our plants to be true-to-name, dug from new beds, free from injurious plant diseases, of the best quality the trade affords, and to reach you in good growing condition.

If the plants are faulty in any way and we are notified at once upon their arrival in your hands, we will either refund the purchase price or replace the stock, at the buyers option.

On account of the fact that growing conditions are far beyond our control, we cannot be responsible for the success of the crop, and in no case will be accountable for more than the original purchase price.



At Work in Renovation

While some strawberry growers find it profitable to fruit a field only one year before plowing it up, most growers consider it best to hold the field for two bearing seasons. Generally the fruit is not as large the second year, nor is the total yield as large. This comes from the fact that for the most part the same plants bear the second year, and they are not as large or as vigorous because the root system is much smaller. Each year the old roots of the plant die, and the new roots that have come from the crown are generally weaker.

Renovating an old field and preparing it for another year's fruiting is likely to be one of the toughest jobs a grower has. Every patch has its own problems in kind of soil, infestation of weeds, kinds of tools available, so that no set rules can be given for the task.

As soon as possible after the fruiting we mow the patch—clipping off the leaves but not low enough to injure the crowns. Then rake the field and remove the loose material, especially the mulch. We then go along each side of the row with a tool of the roto-tiller type, stirring up the ground between the rows and narrowing what is left to a width of eight or ten inches. Hoe the rest of the row thoroughly. This should leave a very nice row, after which the patch can be handled as it was the first year. In a good growing season the row should be practically as good.

We like to sow about 500 pounds of 10-10-10 fertilizer right in the row just as we start renovation.

We are glad at any time to answer questions not covered above, and have a very personal interest in your success with our plants.

AGRICULTURAL CHEMICALS

While the strawberry has its full share of insect and fungus enemies, they are of such a nature that they can be pretty well controlled by planting good clean plants in disease free soil. They may become more serious problems in older plantings and in sections where berries have been grown extensively for some time.

Most likely, in small plantings special control measures are unnecessary and impractical. When insects and fungi appear we can resort to spray and dust.

For the ground-dwelling insects such as grub worms, cut worms, wire worms and root weevil, chlordane at the rate of 10 pounds (actual) per acre, or aldrin or dieldrin at 5 pounds (actual) per acre will prove effective. Spray or dust the chemical on the plowed ground and work it in thoroughly with disc and harrow.

SPITTLE BUGS are recognized by the familiar foam-like spittle masses. The bugs not only damage the plant but are repulsive to the pickers in running their hands through the foliage.

THE TARNISHED PLANT BUG does its damage by sucking in the plant blossom. This affects the fruit by stopping growth in parts of the fruit bud, resulting in the "cat-faces" and "monkey faces" we sometimes see. The tarnished plant bug is controlled by the same spray used against the spittle bug—3 pounds of 50% wettable DDT or TDE in 100 gallons of water per acre, or 3 pounds of 50% Methoxyclor at the same rate of application. Used when the first blossom buds appear.

STRAWBERRY LEAF ROLLER is the larva stage of a small brown, very active moth about 3/16 of an inch long. The worm will eat quite a lot of the strawberry leaflets, then start to build a web along the midrib. This causes the leaflet to completely fold together, thus forming a nice protection for the pupa, but causing the leaflet to die completely. In really bad infestations practically every leaflet will be folded and dead. This damage shows just before fruiting time. Spray first soon after blossom time with 3 pounds 50% wettable DDT or TDE in 100 gallons of water per acre.

Since the roller is a leaf eater, add 2 pounds of Arsenate of lead to the 100 gallons of water. Since there are several generations each summer, a second spray a month or six weeks later might be helpful.

NEMATODES are small short worms no larger than a hair, which occur in the soil in countless numbers and kinds. They are very difficult to identify, many microscopic. Most are harmless, but some cause trouble in various plants. In strawberries, the damage shows in general unthriftness.

Strawberry growers need be concerned only with the root knot nematode and the root lesion nematode. The former is identified principally by the galls or knobs on the roots, suggesting the nodules on legumes. The root lesion nematode is easiest identified by the peculiar appearance of a main root. This main root suddenly ends and continues as maybe four or five branches.

A side dressing of 50 pounds of Nemagon per acre will prevent any major damage. While rather uncommon, Nemagon should be obtainable at any dealer in agricultural chemicals. If a side dressing of 50 pounds is difficult to apply, Nemagon may be mixed with any good fertilizer to make an amount more easily handled. Apply a month or so after setting.

WEED CONTROL

Many growers report good success in reducing labor in the field by the use of Craig Herbicide No. 1, or Sesone. Applied at the rate of 3 to 4 pounds per acre in enough water to wet the soil to the depth of $\frac{1}{4}$ inch or so after the plants are well started, this chemical will kill weeds as they sprout. It does not harm plants already growing, so Sesone must be applied when the planting is clean of weeds.



Good Garden Prospects — Harold and JoAnn Trout, Warren, Indiana

CHOICE OF VARIETY

With the introduction of so many new and good varieties of strawberries from the work of the plant breeders at the U.S.D.A. and the many state experiment stations, just choosing the kind we want to use has become quite a problem.

More confusing, the results of the various test plots vary so much; from year to year at one station as well as from station to station for the same year. Thus at the Purdue experimental plot Catskill in 1957 ranked thirteenth among 25 varieties with a yield of 4200 quarts per acre. In the same plot in 1958 Catskill ranked first with a big 7800 quarts per acre. In the same tests, Tennessee Beauty ranked first in 1957 with 6200 quarts but fell to tenth in 1958 with a total yield of 5000 quarts per acre.

Different and changing weather conditions, late frosts, drought, excessive moisture, high temperatures at picking time, plant production the previous year, insect and fungus damage, all these items are variable factors affecting the picture.

It is a pretty good rule to choose for the greater part of your plantings the varieties that have done well for you and in your community. Experiment with other recommended kinds in smaller sections to see what they will do.

The table below gives some general comparisons, while in the following pages we have tried to point out the varietal characteristics in more detail.

	Yield	Firmness	Quality	Size	Season
Earlildawn	Good	Good	Good	Med.-Lge.	Very Early
Premier	Very Good	Fair	Good	Large	Early
Catskill	Very Good	Good	Very Good	Large	Mid-Season
Dixieland	Good	Good	Fair	Large	Mid-Season
Pocahontas	Very Good	Good	Rather Tart	Large	Mid-Season
Blakemore	Fair	Very Good	Rather Tart	Medium	Mid-Season
Dunlap	Fair	Poor	Very Good	Medium	Mid-Season
Surecrop	Good	Good	Fair	Large	Mid-Season
Vermilion	Good	Fair	Good	Med.-Lge.	Mid-Season
Robinson	Good	Good	Very Mild	Very Large	Late
Armored	Good	Good	Good	Large	Late
Tennessee Beauty	High	Firm	Tart	Medium	Late
Sparkle	Fair-Good	Good	Excellent	Medium	Late
Paymaster	Fair-Good	Good	Excellent	Medium	Late

"I received my first order of 700 plants from you a few weeks ago. Thanks for the finest plants I have ever received."

Willis Rector
Harrisburg, Illinois

ROBINSON

Sometimes known as Scarlet Beauty, sometimes as Kardinal King, Robinson caught on with growers quicker than any variety since the advent of Premier. Favored by commercial grower and gardener alike.

Robinson is very popular in northern climates. Michigan State University estimates that 60% of the berries grown in Michigan are of this kind. The greater part of this acreage is sold as fresh fruit, much of it through the great Benton Harbor market to be retailed in many large northern cities.

Robinson will do well throughout the Premier territory. Plants are of the same general type—light green, healthy foliage, cupped leaves. The plants are deceptively small to produce such a large berry, and they run so freely that they often get too thick in the row for best performance. Robinson ripens five or six days later than Premier.

The berry is smooth-skinned, glossy, bright red with prominent yellow seeds and bright green cap that make a very attractive appearance. Another trait is the very large size of the berry—the largest we know. We generally think that berry size is acceptable if 100 will fill a quart. We have had numerous letters from growers who found that 16 and 17 berries would fill a quart. One grower found 14 berries that would do it.

While they ship fairly well, Robinson berries are not very firm, especially in wet, hot weather. The flesh is very light, sometimes the centers are hollow. Not favored too well by processors because of the light color and mild flavor. The first berries are likely to be white on the tip while the blossom end shows red.



PREMIER

Whenever strawberry men speak of Premier berries they are referring to the Howard No. 17 strain that has been so very popular since its introduction nearly fifty years ago.

It is extremely unfortunate that the U.S.D.A. in releasing "virus-free" varieties a few years ago included a kind called "Premier". It was accepted by nurserymen everywhere and was soon in the hands of growers, who discovered that it was not the old "Premier" at all, but a kind a great deal inferior to it.

We have now dropped this strain entirely, and whenever we speak of Premier we shall mean the old Howard 17 which has meant so much to growers throughout the middle west.

Although many new varieties have been developed that are very good so that Premier is no longer the leader, it has many good and dependable qualities to recommend it. No variety is earlier than Premier except Earlidawn. While no berry is frost-proof, Premier is the nearest thing to it that we have. The berries are borne close to the ground which minimizes frost damage, while several fruiting stems appearing in sequence tend to lessen the danger from frost at any time.

No variety has healthier foliage than Premier. Individual plants are large, the foliage light green in color, the leaves rather cupped. The first berries are large, sometimes double or cocks comb in shape, with a bright green cap, and are firm enough for reasonable handling but not as firm as Pocahontas or Blakemore. Later berries are smaller and like all varieties that bear heavily, may tend to be too small in dry seasons.

Premier remains the favorite in the great berry producing Berrien and Van Buren counties of southwest Michigan. The first berries, large and fancy, are sold as dessert fruit. Then as the size decreases and the big Robinson appear Premier is taken by the processors. The berries are cleaned as they are picked and sold by the pound. The dark red, flavorful fruit, the fact that it caps easily, its ability to keep well on the vines for longer intervals than most varieties, its very dependable performance, year in, year out, account for its popularity.

As one grower has said, "Even though Premier does not rate as a fancy berry by modern standards, in the northern states it is quantity producer of attractive berries, acceptable on most wholesale and retail markets."

CATSKILL

Catskill is one of the very best of the commercial varieties, with a wide adaptation from eastern Tennessee north to include Michigan, Wisconsin and Minnesota, from the New England states west to Nebraska.

The foliage is vigorous and healthy. The plants are large and rugged, running freely and making just a nice fruiting row. The flower stalks are heavy and stand high, blossoms are quite large.

You cannot beat this variety for production. In the tests at Purdue in 1958 Catskill topped the list of twenty-five kinds with a whopping 7800 quart yield on a two year old patch. A high percentage of this yield was of large, marketable fruit.

The berries are bright red at first, getting darker as they ripen, and they are easily capped, which makes them a favorite in growing for processors. Not as firm as Blakemore, Tennessee Beauty and the others that we think of as shipping berries, but plenty solid for local marketing. A good dessert berry and good for freezing, too.

On account of its high production records and its favor with processors we are apt to think of Catskill as a commercial berry, but its high dessert quality and freezing qualifications recommend it as an excellent garden variety as well. Ripening a little later than Premier, Catskill becomes a choice kind for supplementing Premier and extending the fruiting season.

I think that the nicest bearing patch I ever saw was of Catskill, owned by W. R. Chitwood & Sons of Dayton, Ohio. Beautiful berries, commanding a high price and ready sale on the Dayton market.

DIXIELAND

Dixieland is a Blakemore cross that is making a determined bid for favor throughout the territory where its parent has been so popular for so long. From many sections good reports have indicated that it is taking over a good part of the acreage.

Dixieland is a berry of the Blakemore type. The plants run freely and make a nice row, but the Dixieland plants are quite a bit larger and are somewhat thinner in the row. This resulted in much larger berries in the Dixieland patch.

The fruit is large, bright red, very firm, a little tart, an excellent shipper with an attractive appearance. Pretty good as a dessert berry, very good for freezing.

Dixieland has consistently outyielded Blakemore under like conditions.

BLAKEMORE

A favorite of many years standing, according to U.S.D.A. figures,—Blakemore is still grown on more acres than any other variety, in spite of the performance of the relatively new Tennessee Beauty, Pocahontas, Dixieland and Armore. Blakemore is very responsive to care and attention, but is also such a rough and ready sort that it does well under conditions of neglect and abuse.

Foliage growth is vigorous and abundant. Plants are generally healthy. Tolerant of the viruses, resistant to leaf spot and leaf scorch. Makes a great many plants, requiring attention to prevent them from being too thick.

The fruit ripens uniformly, rather early. Smoothly rounded, nice green cap with attractive appearance. The berry is very firm and solid, prime requirements for a shipping variety, in which class Blakemore is very good. A good yielding kind, adapted especially to the southern fruit belt, but we have seen some very nice fields this far north. This berry is quite acid, high in pectin, pretty good for processing.

With us, the quality of this berry has not been as good as we like, and the yield has not been high. It is quite tart and firm, without the redeeming feature of rich flavor. It is also susceptible to "June Yellows", which is liable to develop at any time in spite of very careful selection.

TENNESSEE BEAUTY

Easily the best of the new kinds from the Tennessee Experiment Station, Tennessee Beauty has many of the characteristics that have made its parent Blakemore so popular. It is so good that it has replaced Blakemore in the wide spread southern fruit belt, and would be more popular farther north if it had some other name.

Tennessee Beauty is a free-running variety, making a very nice row of large plants. Sets a lot of fruit and stands very high in total production. Late season in ripening.

The berry is bright and showy with a bright green cap, of better than average quality, with a good strong strawberry flavor. Flesh is very firm, skin tough, to adapt it as a good shipping berry. Rather tart, a little like Blakemore in this respect.

This Tennessee Beauty is one of the best varieties. Very hardy, high in production, good quality, excellent for freezing. Firm in texture for distance shipping, nice appearance. The plants should be kept thinned out in the row to maintain the berry size. This size is liable to drop in late season if the row is too thick or other adverse conditions occur.

POCAHONTAS

This variety, a cross between Tennessee Shipper and Midland, has had the fastest gain in popularity and has experienced the widest acceptance of any new variety we have seen in the last forty years. It is giving some of the popular, older varieties more competition than they can take.

This fast gain in popularity has come about because it has so many of the qualities you like to find in a variety. It is a fairly prolific plant maker, it yields very well, the fruit is attractive and firm enough to use commercially, the dessert quality is good, and it freezes well. Processors like it.

As a plant maker Pocahontas is not equal to Blakemore or Robinson but it makes a good row and the individual plants are larger. It is resistant to leaf scorch and partially resistant to leaf spot.

In the Purdue tests of 1957 and 1958 Pocahontas ranked high in total yield and in size of berries. Results were the same in the Ohio tests at Wooster. Reports from some of our best commercial growers from southern and northern Ohio, from Pennsylvania, Indiana, Illinois and southern Michigan, all indicate that Pocahontas has either done best for them or has yielded as well as any variety fruited, and that the quality has been well liked. In our own fields in 1961 Pocahontas led all varieties fruited.

The berry is large and attractive. It is a bright, medium red, fairly firm, and glossy. It is second early in ripening.

As the reports come in from many regions with favorable comments it seems certain that Pocahontas is adapted to a wide area. We believe that you will want to try it.



EARLIDAWN

This new cross of Tennessee Shipper and Midland, introduced by the U.S.D.A., has taken an important place with strawberry growers because of its extreme earliness. Although it is even earlier than Premier, from tests to date it seems to be almost equally as hardy as the frost-proof Premier.

Although its first great appeal was based on the earliness in bearing and the fact that there was a great shortage of plants, good reports coming in from our best commercial growers incline us to believe that Earlidawn is standing the test of time and should be considered one of our better varieties.

Among the qualities that recommend it are its large, bright red, fairly firm, though somewhat tart, berries; the fact that it ripens a large percent of its berries during the first week of picking. Yields have been good.

Earlidawn is not a good plant maker. However, good rows can be obtained by using your most fertile soil for this variety, and setting early. If you have a good early market this variety will be valuable to you.

ARMORE

The many favorable reports we have had from many growers on Armore indicate that in this variety we have a berry that inherits the good qualities of both parents. From Aroma it gets large size, attractive appearance, good quality. From Blakemore we have those qualities that have made it so important to the southern grower.

We think that Armore has not yet been fully appreciated. In tests at Orleans, Indiana, under Purdue supervision in 1958 Armore topped all varieties tested with a whopping production of 19300 quarts per acre. Equally important, the percentage of marketable berries from a size standpoint was still more outstanding.

For the Ohio Station at Wooster in 1955 and 1956, the runner production of Armore was very high, berry production was near the top, size of the berry second only to Robinson, sugar content highest of all varieties tested.

Armore is a free running variety, especially adapted to silty loam soils. Makes heavy yields of large, cherry red, glossy, firm berries of very high dessert quality. A late berry.

"Thanks for all your wonderful plants in the past. You are a very good company to deal with."

**John W. Whybrew
Swayzee, Indiana**

SENATOR DUNLAP

This is an old variety, too well known to strawberry lovers to need lengthy description, as it has been a popular favorite for many years. It is a hardy grower and prolific plant maker, the sort of rough and ready variety able to take a lot of abuse and still come up with a good crop. While we would certainly not recommend such treatment, we have seen Dunlap come up with very nice berries after being abandoned to weeds the previous year.

The hardness of Dunlap adapts it to the far northern parts of the country; northern parts of Michigan, Wisconsin, Minnesota and Dakota, where it is a great favorite. Cooler climate makes it firmer there and of even better quality.

The berry is of medium size, dark red clear through, very rich in flavor, very good for use in your garden. It cannot be surpassed for canning or preserving. Not a good commercial kind because the fruit turns too dark after sitting, it is liable to run small in late season, and it is not firm enough to handle well.

We may be partial to Dunlap because it was the main crop variety when we first got acquainted with berries fifty years ago. We still think it is the richest flavored, highest quality berry of all.

Mid-season in ripening, a few days later than Premier. Try this berry on fertile, moist soil, keep the plants well thinned, and discover strawberries at their luscious best.



Use of Hill System for Everbearing. A Boy's 4-H Project.

RED STELE RESISTANT VARIETIES

In some strawberry growing centers, especially where berries have been grown for a number of years in the same location, "red stele" has become a very serious threat. In this virus disease the stele, which is the duct in the center of the root leading to the crown, and which in a normal healthy plant is like a slender white thread, turns to a reddish brown and dies. Since the stele is the plant's life line, it too wilts and ultimately dies.

The trouble climaxes just at bearing time, and too often a nice prospect for fruit has been ruined in a matter of days.

There is no spray, dust or other treatment that will do any good. The grower must either set new, diseases free plants in new ground where strawberries have not been grown, or use only the varieties that are not susceptible to the red stele disease.

Since a grower can never be certain that he will not run into trouble with red stele, it is good insurance to try the resistant varieties so that he would know which was best adapted to his locale. Thus, in case of trouble he could continue in business with no let up in yield, quality or production.

Surecrop, Sparkle, Paymaster and Vermilion are the best of the red stele resistant varieties, we believe.

SURECROP

This is another variety, which is like Pocahontas in that it has made very rapid gains in favor in a short time. Although developed for its red stele resistant qualities it has found such favor it is now being used by a great many who have had no red stele trouble but like Surecrop for its many fine qualities.

It grows vigorously, making a fine row. In addition to being resistant to all three strains of red stele disease, its foliage is also resistant to leaf diseases. While not quite as productive as Pocahontas, it yields very well, and its berries are glossy, larger than Premier, red, very attractive. They are firm enough to ship successfully. Ripening is mid-season.

One grower writes, "We have liked Surecrop very much. June was very dry and we had no irrigation. In spite of that we had a fine crop of berries."

This is one of the best of the many fine varieties given us by the U.S.D.A. Well worth giving it a try in your fields.

"I am 82 years old and have raised a hundred acres of strawberries. Your plants are wonderful. I am enclosing orders for me and my grandson.

George C. Wakeman
Chebanse, Illinois

VERMILION

Vermilion has performed very well in comparison to other varieties in tests at the University of Illinois where it originated. In the 1957 and 1958 test plots at Purdue, involving 25 good varieties, the total production on the Vermilion for the two years was the highest of all - 12,900 quarts per acre.

The Vermilion fruiting row is very nice, made of a good number of large plants rather than many small ones. The berries are not really large, but the size is maintained well throughout the season, so that the average size is quite satisfactory. The skin is bright glossy red, vermilion. Nice quality fruit, rather on the sweet side. Nice dessert quality, good for freezing. Firm enough for local and shorter distance handling.

Vermilion is one of the top varieties for the northern fruit belt especially, and has the very distinct advantage of being resistant to the most common strains of virus and red stele.

SPARKLE-PAYMASTER

Sparkle is an old favorite variety, both for its dessert quality and for production as a field crop. It is probably the best red stele resistant kind for our territory.

The plants grow with more than average vigor, and the round leaves give the foliage a distinctive appearance. The berries are dark red clear through; the flavor pleasing. Freezing quality is high.

Many berries are set and are apt to become smaller in size in later season.

Sparkle responds well to careful attention. Have the soil fertility high, do not allow the plants to get too thick, use irrigation if possible. **Sparkle** responds well to extra care.

Lately this variety has won new acclaim in Michigan under the name **Paymaster**. Having seen "**Sparkle**" and "**Paymaster**" fruiting, we feel certain that they are the same.

"Am sending my order again this year. I like your plants very much. They are extra nice plants. I would hate to have to get them any place else."

A satisfied customer,
Peter H. Lee
Marshall, Illinois

EVERBEARERS

For many years we have been very dubious about the culture of everbearers, and in fact have advised against their use in many cases. We had observed too many failures. Many were "near misses", to be sure, but still very doubtfully successful. Also, varieties showed a tendency to "run out". This came about from the fact that the plants that made the most runners made fewer berries, and the plants that bore heavily made relatively few runners. Thus in propagation of the variety by new plantings, the plants used were generally from the lines which bore least.

However, recent very successful experiments at the Ohio experimental station at Wooster have showed how anyone can have an abundance of fresh berries throughout late summer and early fall, with relatively little expense and trouble.

x x	x x x	x x x
x x	x x x	x x x
x x	x x x	x x x
x x	x x x	x x x
x x	x x x	x x x
x x	x x x	x x x
x x	x x x	x x x
x x	x x x	x x x

The planting pattern is as shown in the accompanying diagram. The plants are set 1 foot apart in rows 1 foot apart. Three or four rows are set, then enough space is left to walk through, and another group of rows are planted, and this pattern is continued through the patch.

Cultivate the plants once and hoe out remaining weeds. Then cover the entire planting to a depth of 1 to 1½ inch with saw dust, and maintain this mulch throughout the summer, being careful not to cover the crown.

If more weeds come through the saw dust they must be pulled or clipped off, since hoeing would mix the soil with the saw dust. Sometimes more saw dust must be added to maintain its depth to a full inch throughout the season.

Use the hill system, that is, cut off all runners as they start and keep for fruiting just the plants that were transplanted in the beginning. If no sawdust is available, ground corn cobs will do almost as well.

This method has generally been very successful in producing real crops of very beautiful fruit. Sometimes, in cases of extremely dry weather, it is a good plan to add some water for irrigation, but in most cases the saw dust mulch has held the moisture quite well.

Keep all blossoms clipped off until the plants are well established, about July 1, after which they may be allowed to develop and fruit should be available until frost.

Everbearers do best in the year when they are set, but they cannot compare in production with the June bearers. However, some kinds do perform creditably the next spring season. Thereafter it is best to just abandon the patch. Generally, renovation will not pay and it is much better to set new plantings each year.

GEM

For many years we have considered Gem as tops in the everbearing field, and we think more highly of it as we receive more reports on the exceptional performances of Superfection and the "new" Brilliant. For everything said of these two varieties applies also to Gem, as they are, we think, so nearly if not exactly the same.

Gem is superior in many ways. Grown by the hill system with the saw dust mulch, the mother plant becomes large, with many large leaves. If used in the matted row manner, a good row is made. Leaves are smooth and waxy looking and practically free from leaf spot to which many kinds are subject.

Berries are large and showy, firm enough to handle nicely. The berry is somewhat tart but has a nice flavor. Not equal to some of best June bearers in quality but still acceptable.

SUPERFECTION

When we obtained our foundation stock of Superfection a few years ago, we could see no difference between this "new" everbearer and the Gem we had had for many years.

Since then we have seen the two varieties grown side by side in several cases, and we can see no difference, and most nurserymen agree on this observation. Superfection is capable of all the production feats credited to Gem.

In the Ohio production tests Gem and Superfection made the best records where the sawdust was used. We can recommend them highly.

"If anybody wants berry plants I will advise them to buy from you. I have had good luck with your plants. . . . Thanks for your advice and good service. When I want berry plants I know where to buy."

**A pleased customer,
Everett Raley, Hymera, Indiana**

Directions for Purchasers

We pay transportation charges only when plants are ordered at the 100 rate.

All other prices are f. o. b. Pierceton, you pay transportation.

Shipped by either parcel post or express. Be sure to tell us how to ship. Large orders we send express unless otherwise directed, small orders by parcel post.

The express company has a minimum charge of \$2.77 which prohibits its use for small shipments.

If sufficient money to pay parcel post charges is not sent with order, plants will be sent C.O.D. for the amount of the postage due, for we cannot keep accounts and send bills for small items of postage. C.O.D. charges are high, so be sure to send ample postage and we will refund the difference due you.

Shipping weight varies with the season and the variety, but will approximate 4 pounds per 100 plants.

PLEASE WRITE YOUR NAME AND ADDRESS PLAINLY AND COMPLETELY.

Please give us your telephone number in your letter.



1962 PRICES

Variety	50	100	1,000	5,000 per 1,000	25,000 per 1,000
Premier	\$1.25	\$2.00	\$12.00	\$11.50	\$11.00
Earlidawn	1.25	2.00	12.00	11.50	11.00
Catskill	1.25	2.00	11.00	10.50	10.00
Pocahontas	1.25	2.00	11.00	10.50	10.00
Surecrop	1.25	2.00	11.00	10.50	10.00
Vermilion	1.25	2.00	11.00	10.50	10.00
Sparkle	1.25	2.00	11.00	10.50	10.00
Paymaster	1.25	2.00	11.00	10.50	10.00
Robinson	1.25	2.00	10.00	9.50	9.00
Armored	1.25	2.00	10.00	9.50	9.00
Dixieland	1.25	2.00	10.00	9.50	9.00
Tennessee Beauty	1.25	2.00	10.00	9.50	9.00
Blakemore	1.25	2.00	10.00	9.50	9.00
Dunlap	1.25	2.00	10.00	9.50	9.00
Gem	1.50	2.50	15.00	14.00	12.50
Superfection	1.50	2.50	15.00	14.00	12.50

500 or more at the 1,000 lot quotations.

On orders of less than 500 plants we pay postage at above prices.

We do not pay transportation charges when the price is figured on the 1,000 lot basis.

Please read carefully the instructions to customers on page 26.

PLEASE WRITE YOUR NAME AND ADDRESS PLAINLY AND COMPLETELY.

Please note that our address is PIERCETON, not Princeton.

We are located on State Road 5, eight miles north of its intersection with U.S. Road 30.

Our Telephone — North Webster 834-1854.

Our References: Farmers Loan and Trust Co., Columbia City, Indiana; Postmaster, Pierceton, Indiana; Express Agent, Columbia City, Indiana; John J. Favinger, Indiana State Entomologist.

